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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,480

09/28/2006

Yoshiharu Ohta

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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT

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1793

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,480	<b>Applicant(s)</b> OHTA ET AL.	
	<b>Examiner</b> Michael A. Marcheschi	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,10,11,13,14 and 16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,10,13 and 16 is/are rejected.
- 7) ☒ Claim(s) 2,8,11 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

In view of applicants remarks on 11/10/08, the 102 rejection previously defined is withdrawn.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because it depends on a canceled claim.

Claims 1, 4, 5, 6, 13 and 16 are rejected under 35 U.S.C. 103(a) as obvious over Pasqualoni et al. (050) for the same reasons set forth in the previous office action which are incorporated herein by reference.

Applicant's arguments filed 11/10/08 have been fully considered but they are not persuasive.

Applicants make a statement that the examiner agreed in the interview that the insertion of the limitations of claim 3 alone would likely overcome the prior art of record. It is noted that the examiner made a statement that the insertion of the limitations of original claim 2 in

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*combination* with the limitations of original claim 3 (combination of these two limitations) would likely overcome the prior art of record and not the insertion of only one of the respective limitations. It would appear that a miscommunication is apparent. It is to be noted that the interview summary set forth a suggestion of the limitations of claims 2 and 3 be put into claim 1.

Before responding to applicants arguments against the art rejection, it is to be noted that the claims can be given the broadest reasonable interpretation. Instant claim 1 defines 2 criteria (1) the number of particles of fumed silica having a particle diameter of 0.5 microns or more is 600,000 pieces/ml or less and (2) the number of particles of fumed silica having a particle diameter of 1 micron or more is in the range of 500 to 6000 pieces/ml. As can be seen from criteria (1) of this claim, (a) the phrase “0.5 micron or more” reads on any value above 0.5 micron, such as 1 micron and (b) the phrase “600,000 pieces/ml or less” reads on any value below 600,000 pieces/ml, such as 500-6000 pieces/ml. In view of this interpretation, the claim can be broadly construed as only defining that the number of particles of fumed silica having a particle diameter of 1 um or more is in the range of 500 to 6000 pieces/ml. This is especially apparent (a) in view of the above interpretation of “or more” and “or less” and (b) the fact that instant claim 1 does not clearly set forth that the number of pieces/ml in the individual criteria above must be different in terms of the contents thereof. Applicants are reminded that the open ended language defined for criteria (1) renders the claims obvious over this applied reference since the claims do not clearly distinguish that the contents defined in the individual criteria must be different.

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The majority of applicants response pertains to the inherency aspect and this is acknowledged, however, the 102 rejection based on Pasqualoni has been withdrawn, thus negating applicants arguments about inherency.

With respect to the 103 part of the rejection, it would appear that applicants are arguing that Pasqualoni does not teach “the second criteria of the claim (the number of particles of fumed silica having a particle diameter of 1 um or more is in the range of 500 to 6000 pieces/ml), the examiner disagrees because the reference clearly teaches in the abstract that the number of particles having a size “greater than 0.5 microns” is 25-150,000 particles (i.e. pieces) per 30 micro liter. In view of the above teaching, this criteria is met because (1) a size of greater than 0.5 microns, as defined by the reference, reads on 1 micron and (2) taking 25 particles/30 micro liter converts to **approximately 888 particles per ml**. In view of the above interpretations, the reference teaches that the number of particles having a size 1 micron is **approximately 888 particles per ml**, thus clearly reading on claimed criteria 2, contrary to any assertions by applicants. With respect to criteria (1) of instant claim 1, as defined above, this also reads on reads on “the number of particles of fumed silica having a particle diameter of 1 um or more is in the range of 500 to 6000 pieces/ml” especially in view of the interpretation of “or more” and “or less” as defined above and (b) the fact that instant claim 1 does not clearly set forth that the number of pieces in the individual criteria must be different. In summary, when the teachings of Pasqualoni are taken and compared to the broadest interpretation of instant claim 1, as defined above, the claimed limitations are met absent (1) specific evidence as to why the examiners interpretations of “or more” and “or less” are wrong and (2) specific evidence as to how claim 1

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clearly sets forth that the number of pieces/ml in the individual criteria above must be different in terms of the contents thereof.

It would appear that applicants argue that the examiner has not stated any obviousness interpretations in the last office action. The examiner disagrees because it was clearly stated that (1) “since the number of particles will display a size distribution, it is viewed as apparent that the size distribution of the reference reads directly on the size distribution of the claimed invention absent evidence to the contrary” and (2) the limitation “greater than 0.5 microns, as defined by the reference, clearly reads on the claimed sizes and the skilled artisan would have appreciated that this allows one to shift the distribution to one that appears to read on the instant invention absent evidence to the contrary. In addition, regarding the particle size distribution, the reference clearly implies that the range of the distribution can be manipulated (manipulation of the range of the reference is clear in view of the statement “25-150,000 particles”) and it appears that the disclosed range of the reference reads on the disclosed range of the instant application” and statements (1) and (2) above reflect an obviousness determination in which applicants must respond to and have not clearly done so. In view of said statements, it was not “merely alleged” as argued because all sizes ranges will exhibit a distribution and applicants have not shown that no distribution in a size range will be apparent.

As can be seen, since “greater than 0.5 microns”, as defined by the reference, includes a value of 1 micron or more, overlapping ranges are apparent.

Applicants also argue that no process limitations are present in the claims. The examiner disagrees because a clear look at claims 5, 11 and 13 which define that the fumed silica “is prepared by...” clearly defines a process limitation.

Applicants also argue that the pH of the aqueous alkali solution is 12-14 and the pH of the reference is 10.5. The examiner is aware of this, however, not convincing because (1) the claims do not specify what the pH of the claimed polishing composition is and (2) a pH of 12-14 is the pH of the alkali aqueous solution that is used in combination with the acidic fumed silica dispersion to form the fumed silica of the invention (i.e. when an acidic fumed silica dispersion is added to the alkali aqueous solution, the pH will no longer be 12-14). In summary, any recitation of the pH in the instant claims is related to how the fumed silica is produced and thus are process limitations and in no way define what the pH of the final polishing composition will be. Applicants use process limitations to define the product and "product-by-process" claims do not patentably distinguish the product even though made by a different process. *In re Thorpe* 227 USPQ 964.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to teach, suggest or appreciate the claimed 2 different criterion as set forth for the silica particle diameter (i.e. that the number of pieces/ml in the individual criteria must be different and are defined by the claimed amounts).

Claims 8, 11 and 14 are also objected to as because they are dependent on an objected to claim (claim 2 above) but would be allowable *only if the limitations of claim 2 are incorporated into claim 1*.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael A Marcheschi/  
Primary Examiner, Art Unit 1793